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THE EFFECTS OF RELIGIOUS FACTORS ON CHILDLESSNESS: THE CANADIAN CASE

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The Effects of Religious Factors on Childlessness: The Canadian Case

Abstract

This paper examines, within the framework of logistic regression analysis, the effects of selected socio-economic and demographic factors (e.g., age at marriage, religious preference, religious assiduity, and wife's wage) on childlessness using data on women who are currently married or living common-law, aged 35-44, from the 1984 Canadian Fertility Survey. Differential childlessness among two groups of women, classified by generation of Canadian residence are examined in order to see whether generational status accounts for any observed effect.

The findings show that, contrary to earlier assertions, Catholics are more likely than non-Catholics to be voluntarily childless. The evidence, however, suggests that wives who attend church services quite frequently are less predisposed to choose the non-parenthood role. Also, the results indicate that choice of motherhood and wife's participation in the labour force are incompatible; the higher the wage, the more likely she is to remain childless. In addition, the data reveal that the hypothesized socio-economic and demographic factors differentially influence the incidence of childlessness among first- and second-generation wives. The effect of religiosity on childlessness is negative for second-generation Canadians, while in the case of first-generation, the effect is positive.

One of the critical issues of the post-baby boom era has been, and is still, low levels of fertility in many Western countries. A portion of the decline in fertility certainly stems from increases in childlessness due to voluntary factors; involuntary childlessness does not appear to have changed markedly in the past decade or so (Poston and Kramer, 1986). Despite the attention given to studying fertility behaviour and a burgeoning literature on the subject, childlessness is a phenomenon that has received limited scholarly attention. It is generally thought that few fecund couples remain childless by choice because of strong normative pressure to bear at least one child. That is to say, when parenthood is both supported and encouraged by the society's normative and value structure, childlessness is subjected to severe negative sanctions (Veevers, 1973; Poston, 1976). If this argument is true, it would appear that the recent increase in childless rates may be attributed to higher rates of sterility, and not to socio-demographic, economic, and cultural factors. This situation, however, is less likely to characterize many Western countries where health care and medical technology are advanced.

The last two decades have seen a variety of forces influencing women's decisions with respect to parenthood and childlessness. Later age at marriage, increasing use of sterilization, availability of effective means of birth control, and increasing participation of women in the labour force have made the childbearing of couples largely a matter of their own choice. As unplanned births decline, intentions to parent or not become the crtitical determinant of aggregate fertility. Thus, understanding what factors are related to couples' decisions to remain childless becomes important, and, as such, may predict future levels in aggregate fertility.

An increasing proportion of married women in Canada are committed to non-parenthood. It is estimated that about 10% of all women in Canada may choose to remain childless in the near future (Veevers, 1980:2). The Quebec Survey of 1980 also indicated that almost 10% of those married in 1974-75 expressed their intention to remain childless (Romaniuc, 1984:33). But very little is known

about the characteristics of women which may have urged them to choose voluntarily to have no children. Further, prior studies on childlessness in Canada often did not make any distinction between voluntary and involuntary childlessness. Since childlessness cannot always be the result of involuntary factors, there is necessity for voluntary and involuntary childlessness to be considered separately and explore what factors are associated with the two types of childlessness. Our argument is that a focus on the voluntary or involuntary component alone can produce a misleading image of the relationship between socio-demographic and economic factors and childlessness.

Demographers have devoted a great deal of attention to the relationship between religion and fertility. As is well known, empirical investigations have often indicated that Catholics exhibit higher fertility than Jews or Protestants, with Jews showing the lowest fertility of the three groups (Bumpass and Westoff, 1970; Freedman et al., 1959; Ryder and Westoff, 1971; Westoff et al., 1961; 1963). Specifically, Westoff and his associates (1963:237-38) have suggested that, "religious preference, that is the preference for the Protestant, Catholic, or Jewish faith, is the strongest of all major social characteristics in its influence on fertility". Subsequent studies have suggested that the Catholic-non Catholic fertility differentials were ending (Jones and Westoff, 1979; Westoff, 1979). More recent research, however, demonstrate the continuation of significant fertility differences between Catholics and non-Catholics (Mosher and Hendershot, 1984a, 1984b; Mosher and Goldscheider, 1984).

If religion affects fertility behaviour, there is reason to expect religious differences in couples' decisions to remain childless. Thus, because the emphasis on procreation is strong in Catholic doctrine, the decision to remain childless should be observed less frequently among Catholic couples than among non-Catholics.

Few researchers have attempted to delineate the significance of religious factors in understanding the phenomenon of childlessness. Neverthless, the evidence concerning the association between childlessness and such factors as *religious preferences* and *religious assiduity* remains inconclusive and often paradoxical (Grindstaff et al. 1981; Tomes, 1985; Poston and Kramer, 1986;

Rao, 1987). It appears, however, that the aforementioned factors are important and may predispose individuals toward (non)parenthood.

In this paper, we investigate the effects of religion (religious affiliation and religiosity) and selected socio-economic and demographic variables (e.g., age at marriage, income) on childlessness (voluntary, involuntary, and temporary) among women (who are married or living common-law) aged 35-44 using data from the 1984 Canadian Fertility Survey (CFS). Differential childlessness among two groups of married couples, classified by generation of Canadian residence is examined in order to see whether generational status accounts for any observed effect.

The organization of the paper is as follows: a review of the studies which have examined the phenomenon of childlessness, the statement of hypotheses, the data and methodology for the analysis, analyses of the relationships between childlessness and selected structural variables and, a discussion of the results.

Previous Research

Until the mid-1970s, the study of childlessness received limited scholarly attention. Since then, however, voluntary childlessness has emerged as a significant area of research. One of the earliest studies of childlessness was that of Grabill and Glick's (1959) analysis of the 1950 United States Census data. These authors found that rates of childlessness are higher among married women with college education, full-time employment, and urban residence. In addition to these three sets of variables, later age at marriage and higher occupational status (white-collar) also were shown to contribute to higher rates of childlessness.

Veevers' (1971, 1972, 1973, 1974a, 1974b) studies on childlessness in Canada were exploratory in nature; however, they contribute valuable insights on the topic. In analyzing data from a survey of 52 voluntarily childless wives in Canada, Veevers (1973) noted that for some wives the childless decision was written into their marriage 'contract' while for others the decision came about slowly.

When the couple become older, postponement of childbearing could turn into a decision never to have children.

In her chapter "Moral careers" of voluntarily childless wives, Veevers (1974b) discusses the voluntarily childless as a deviant category. According to Veevers, there are several basic strategies the voluntarily childless employ (e.g., selective perception structuring of social situations, differential association, and societal ambivalence) in order to comfortably survive in a social situation where their deviant nature would otherwise cause them difficulties (see Nason and Poloma, 1976: 12-13).

There have been some attempts to assess the importance of economic determinants of childlessness, but these results have generally been inconclusive (Kunz et al. 1973; Poston, 1974; Wolowyna, 1977). Analyzing the 1960 United States Census data for married women aged 35-54, Kunz et al. (1973) found an inverse relationship between income and childlessness, holding race, education, and occupation of husband constant. They do not, however, make a systematic attempt to evaluate the significance of income on voluntary childlessness (see Poston, 1974:297). Poston (1974) suggested that voluntary childlessness and income are directly related and that one reason for the inverse or curvilinear association found previously was due to the greater number of involuntarily than voluntarily childless women.

Wolowyna's (1977) research on childlessness in Canada has emphasized, too, the influence of income on childlessness. The author found income as inversely related to involuntary childlessness and directly related to voluntary childlessness. These findings added support to the Poston study in the United States. Indeed, Tomes' (1985) study in Canada found that the wife's wage and the husband's income act in opposite directions. According to him, the higher the husband's income the lower the probability of childlessness and the higher the wife's income, the higher the probability of childlessness. The latter findings suggest a trade-off between motherhood and participation in the work force.

Several studies have shown religious characteristics of couples as predicting childlessness (Gustavus and Henley, 1971; Poston, 1976; Poston and Kramer, 1986; Rao, 1987). Poston (1976) examined the religious preferences of childless (voluntary and involuntary) wives using the 1965 National Fertility Survey. He found greater proportions of both involuntarily and temporarily childless women among Catholics than among women with other religious preferences. A recent study by Poston and Kramer (1986) provided additional explication of the relationship between religious preference and childlessness. Compared to non-Catholics, Catholics are less likely to be voluntarily childless than to be involuntarily childless, temporarily childless or to have children. They also noted that the odds for Catholics compared to non-Catholics of being involuntarily childless as against being in one of the other categories were extremely high. The authors thus concluded that, despite the recent evidence suggesting an end to Catholic-non-Catholic fertility differentials, this convergence may not extend to childlessness.

Voluntary childlessness in Britain was investigated by Baum and Cope (1980) using data from a postal questionnaire survey of married women who had never had a child. They reported that the reason for their respondents' decision not to have children was the value they placed on the freedom they consequently gained. They also observed that economic factors were not important in a couple's decision to remain childless.

Pol's (1983) study focussed on parenthood versus non-parenthood and subsequent behaviour and intentions among a panel of United States women. Utilizing data from the 1970 and 1975 National Fertility Surveys, he showed that while the intention for zero children was retained, the intention to have children changed. His analysis showed that changing intentions from more than zero to zero children is associated with the four factors: (1) higher levels of education; (2) a slightly higher income; (3) lesser degree of importance given to religion; and (4) labour force participation.

Bloom and Trussel (1984) used the National Survey of Family Growth (1976), the National Longitudinal Survey of women (1978), and the Current Population Survey (1980) to explore the

determinants and obtain estimates of delayed childbearing and permanent childlessness in the United States. The results indicated that the low first birth fertility rates experienced in the 1970s were due to both delayed childbearing and to increasing levels of permanent childlessness. The results also indicated that education is an important determinant of delayed childbearing with increasing influence across cohorts. Education was also found positively associated with childlessness, with the effect increasing and reaching higher levels for the most recent cohorts.

Most studies on childlessness are exploratory (Veevers, 1973; 1980; Campbell, 1983), some are empirical. With the development of log-linear models by Goodman (1969, 1972), recent analyses have focussed more on characterizing the incidence of childlessness (Poston and Kramer, 1986). From our standpoint the principal interest of these studies lies in their inclusion of a wide range of variables as correlates of childlessness. Demographic, socio-economic, cultural, and ecological factors (in macro-studies) have all been investigated in the search for explanations of childlessness. One may summarize findings of these studies by saying that socio-cultural factors (especially education and religion) are substantially correlated with childlessness (Tomes, 1985; Poston and Kramer, 1986; Rao, 1987) and the significance of economic factors is much less clear (Poston, 1974; Wolowyna, 1977).

There is little discussion with regard to the extent to which couples tended to use their religious preferences and/or religiosity in their decision to remain voluntarily childless. An exception is a recent study by Poston and Kramer (1986) in the United States which finds that religious factors do predispose couples to voluntary childlessness. Included in our study are two religious factors (to be described below) and selected potential correlates of childlessness.

Hypotheses

In this section, we develop hypotheses about the extent to which demographic, socio-economic, and religious factors influence childlessness[1]. Tables 1 and 2 provide brief descriptions, means/percentages, and standard deviations of the variables used. The rationale for their inclusion in the analysis is discussed below.

Age at Marriage

A number of researchers have shown that high rates of childlessness tend to be closely associated with late age at marriage (Grabill and Glick, 1959; Veevers, 1971; Grindstaff et al. 1981; Tomes, 1985; Rao, 1987). Tomes (1985) found that women who married later are more likely to be childless and this relationship holds even when marital duration and other factors are controlled. An increase in age at marriage reduces the length of exposure to the risk of conception increasing the likilihood of becoming childless.

Hypothesis 1. *The older a woman is when she marries or starts living common-law, the less likely she is to have a child at all.*

Education

The relationship between education and childlessness has been well documented (Tomes, 1985; Poston, 1986; Rao, 1987). These studies postulate a positive effect of education on childlessness. Education could influence both directly and indirectly a woman's decision to remain childless. A highly educated woman tends to be tied to a life based on personal comfort, educational, and occupational success goals, restraining her from entering into motherhood. Simply put, education serves as a mechanism for pursuing self-interest thereby predisposing individuals towards nonparenthood. It is also possible that educational attainment increases the probability of childlessness by increasing contraceptive use and/or by delaying entry into marriage.

Table 1

Description of Variables

Variable	Definition and Coding
Age at marriage	Wife's age at marriage or the age at which the common-law relationship started (in years)
Education	Number of years of schooling which the wife had completed by 1984
Wife's wage	Wife's estimated wage in dollars (the log of wife's 1983 earnings was regressed on education coded in years of schooling, occupational status coded in Blishen scores (Blishen and McRoberts, 1976), language spoken at home (English=1), region broken down into four dummies (Atlantic, Quebec, Ontario, and West), years worked, and age coded as five-year dummy variables)
Husband's income	Husband's estimated income in dollars (the log of husband's income in 1983 was regressed on education coded in years of schooling, occupational status coded in Blishen scores (Blishen and McRoberts, 1976), language spoken at home (English=1), region broken down into four dummies (Atlantic, Quebec, Ontario, and West), and age coded as five-year dummy variables)
Religion	Religious preference (1=Catholic; 0=non-Catholic)
Religiosity	Religious assiduity (1=high (weekly/monthly/few times per year); 0=low (rarely/never))
Generation	Generation of Canadian residence (set of dummy variables for first generation - foreign-born and immigrated to Canada at age 12 or more, and second generation - born of foreign or mixed pareantage or immigrated to Canada before age 12. Third generation - native-born of native parentage - is the omitted reference category.)
Voluntarily childless	No children and do not intend to have children while biologically capable of having children(1=voluntarily childless; 0=childed)
Involuntarily childless	No children and biologically incapable and not voluntarily sterilized (1=involuntarily childless; 0=childed)
Temporarily childless	No children, biologically capable of having children, and intend to have one or two in the future (1=temporarily childless; 0=childed)

Table 2

Means, Percentages, and Standard Deviations of Variables by Types of Childlessness, Wives Aged 35-44, Married or Living Common-law

Variable	Voluntarily Childless		Involuntarily Childless		Temporarily Childless		Childed	
	Means	S.D.	Means	S.D.	Means	S.D.	Means	S.D.
Age at Marriage	22.154	3.119	22.424	3.934	22.154	2.896	20.587	2.303
Education	13.760	2.575	12.264	3.086	13.845	3.142	12.130	2.892
Wife's Wage	$17,558.189	$7,860.497	$23,973.442	$10,226.665	$17,712.034	$8,296.386	$14,352.133	$10,130.902
Husband's Income	$34,264.376	$26,583.881	$39,884.479	$27,875.769	$36,786.305	$28,707.391	$45,356.284	$31,780.749
Religion*	56.044[a]	-	62.963[a]	-	53.971[a]	-	49.731[a]	-
Religiosity*	35.165[b]	-	44.445[b]	-	33.333[b]	-	48.597[b]	-
Generation*	10.294[c]	-	19.048[c]	-	15.254[c]	-	15.484[c]	-
	(7.576)		(5.556)		(9.259)		(5.446)	

* For categorical variables, the figures correspond to percent

[a] Percent for Catholic

[b] Percent for the category high

[c] Percent for first-generation women; the figures in parentheses are for second-generation women

Hypothesis 2. *The greater the educational attainment of a woman, the more likely she is to choose voluntarily to have no children.*

Income

Income has been found to be related to the incidence of childlessness (Kunz et al. 1973; Poston, 1974; Wolowyna, 1977; Tomes, 1985). As indicated earlier, the findings are inconclusive and often contradictory. Poston (1974) suggested that voluntary childlessness is directly related to income while involuntary childlessness is inversely related to income. Recent research evidence, in fact, is consistent with this view. Wolowyna (1977), for example, found that income is related differently to voluntary and involuntary childlessness. Other researchers argue, however, that childlessness responds differently to wife's wage and husband's income (Tomes, 1985; Rao, 1987). Tomes (1985) observed that wife's wage is directly related to childlessness while husband's income is inversely related to childlessness. In view of these empirical findings, the present study employed both husband's income and wife's wage in the analyses.

Hypothesis 3. *Wife's wage is positively and husband's income is negatively related to childlessness.*

Religion and Religiosity

Though religion has traditionally been used as an independent variable in fertility research, only recently has there been any recognition of its influence on childlessness (Gustavus and Henley, 1971; Poston, 1976; Poston and Kramer, 1986). Studies of childlessness, for example, are only now beginning to incorporate religious preferences and religiosity as explanatory factors.

As Poston and Kramer (1986) have argued, if there are differences in fertility behaviour between Catholics and non-Catholics, one could expect differences in levels of childlessness between the two groups. Given the long-standing emphasis of the Catholic church on the importance of procreation and rearing of children, value of children, and the disapproval of contraceptive practices

and abortion, Catholics should be less predisposed than non-Catholics to choose voluntarily the non-parenthood role. It appears, however, that religious participation in church services are more influential than religious affiliation itself in the evaluation of predispositions toward (non)parenthood. That is, individuals who attend church services quite frequently are more prone to adopting church teachings than those who have less participation in church services.

Hypothesis 4. ***Catholics are less likely than non-Catholics to choose voluntarily to have no children.***

Hypothesis 5. ***The more religious a woman is, the less likely she is to choose voluntarily to have no children.***

Immigrant Status

There is apparently no evidence that childlessness varies among immigrant generations. Attention has been given to nativity differences in childlessness (Rao, 1987). It has been found foreign-born women are less likely than native-born women to have no children at all. Although the forces behind nativity differences in childlessness have not been explored, it may be argued that socio-cultural and economic differences between minority immigrants and majority natives can be an important factor. While the vast bulk of the evidence indeed favours the inference that the fertility of immigrant ethnic groups eventually converges with that of the native population, it is neverthless true that no attention has been given to studying the generational convergences or divergences in the rates of childlessness. But to the extent that childlessness is ethnically/culturally contained, generational status would explain some variance in childlessness.

Hypothesis 6. ***The incidence of childlessness varies among women of immigrant generations; women of first and second generations are less likely than the third generation to choose voluntarily to have no children.***

Data and Method

The data in this paper are drawn from the Canadian Fertility Survey (CFS) of 5315 women (including single women) between the ages of 18 to 49. The CFS is Canada's first national fertility survey, carried out by telephone in April-June of 1984. The sample was selected using a two-stage probability process. The first stage involved the selection of households through the random generation of telephone numbers. The second stage involved the choice of eligible respondents (women aged 18 to 49) in each selected household (for a detailed methodological report for the interviews and sample attrition, see Tremblay and Trudel, 1984). The overall response rate was 70%, slightly lower than that found in face-to-face surveys, but comparable to that of other telephone surveys (Balakrishnan et al. 1985:210).

The survey questionnaire is an outgrowth not only of the WFS questionnaire, but of other surveys done in Canada, Europe, and the United States. The CFS contained a substantial number of questions on attitudes towards marriage and family, seldom asked in fertility surveys. It also provides information on a number of socio-demographic and economic aspects of the family. In addition, it is equipped with a set of questions on marriage and pregnancy histories, past and current contraceptive use, work history and its interface with fertility behaviour.

For the present analysis, the sample was restricted to women in the age-group 35 to 44 who were still married to their first husband/living common-law at the time of the survey, resulting in a sample of 2,807. This was essential to eliminate the complicating effects of disrupted marital histories in decisions regarding (non)parenthood. Furthermore, we focused on the age-group 35-44, thus including only those women whose decision not to have children is relatively permanent.

The childless women in our sample is disaggregated into voluntary, involuntary, and temporary categories (see Table 1 for description). This disaggregation procedure is based on the women's responses to questions dealing with expected family size, fecundity status, contraceptive use,

pregnancy history, and so forth. Of the total sample, 91 are voluntarily childless, 27 are involuntarily childless, 84 are temporarily childless, and 2605 are childed. In addition to types of childlessness, immigrant status is also used as a classificatory variable in the models. A separate analysis between women of first and second generations was deemed necessary due to the interaction effects between immigrant status and fertility behaviour (Krishnan, 1988), and possible minority group status effects on childlessness (Rao, 1987).

The models are estimated using ordinary least squares (OLS), then re-estimated using logistic regression.[2] Only the logistic regression results are presented here. Logistic analysis is preferred for two major reasons. First, the dependent variable has an extremely skewed distribution and in such instances logit models are superior to techniques such as the Multiple Nominal Analysis (MNA). Second, the Maximum Likelihood Logit model employed in this study is capable of handling both categorical and continuous independent variables (see Amemiya, 1981; Tomes, 1985; Aldrich and Nelson, 1987).

Results

Table 2 shows that childless couples were married about two years later than childed couples while no significant age differences occur between the voluntarily, involuntarily, and temporarily childless couples.

Focusing on socio-economic status, childless wives in general have more years of schooling than the childed but the differences are small. There are virtually no differences in educational attainment between the involuntarily childless and the childed. Note also that the mean income of childless wives is typically higher than that of childed wives. The single exception of note is husband's income, where income of childed husbands is much higher than that of childless husbands. This is consistent with the view that wife's wage is directly related to childlessness while husband's income is inversely related (Tomes, 1985).

With regards to religious affiliation, 50% of the childed wives are Catholics whereas more than half of the childless wives are Catholics. Focusing on religious assiduity, generally women who have children are somewhat likely to be more religious than their counterparts who are childless. A larger proportion of childless (and also childed) wives belongs to the first generation. Generational differences in childlessness are most pronounced in the case of involuntary childlessness.

Effects of the Determinants of Childlessness

Tables 3 and 4 present the results of logistic multivariate analyses. Five equations were estimated using logistic analysis based on data for three types of childlessness - voluntary, involuntary, and temporary - and for the two groups of immigrant generations - the first-generation and the second-generation. Since there are likely to be structural differences between the three types of childlessness and the two immigrant groups, we analyzed these five samples separately. Tables 3 and 4 contain the estimated coefficients and t-values (the ratios of the coefficients to their asymptotic standard errors). The significance of each explanatory variable can be assessed with the use of t-values. Education was dropped from the final analyses as it showed high zero-order correlation with wife's wage[3].

The data give partial support to previous findings (e.g., Tomes, 1985; Rao, 1987) that posit a significant association between age at marriage and childlessness. Age at marriage has significant impact on childlessness. On the whole, the coefficients for all the tree types of childlessness show a remarkably similar effect. The successively positive and larger coefficients indicate an increase in the probability of childlessness as the age at marriage increases.

The coefficients for religious preference do not tend to support our expectations. The coefficients are positive in all eqations, but temporary childlessness[4]. This finding that Catholics are more likely than non-Catholics to be voluntarily and temporarily childless is at variance with previous research for Canada (Tomes, 1985; Rao, 1987) and for the United States (Poston and Kramer, 1986).

Table 3

Determinants of Childlessness: Logistic Regression Models[a]

Independent Variables	Voluntary Childlessness	Involuntary Childlessness	Temporary Childlessness
Age at Marriage	0.141**	0.105**	0.135**
	(6.089)	(2.384)	(5.799)
Religion	0.058	0.074	-0.083
	(0.379)	(0.237)	(0.539)
Religiosity	-0.446**	-0.419	-0.446**
	(2.764)	(1.216)	(2.799)
Wife's Wage	0.001**	0.001**	0.001**
	(2.681)	(2.981)	(2.718)
Intercept	0.425	0.177	0.596
Number of cases	91	27	84

[a] t-values in parentheses ** $p < .01$

Table 4

Determinants of Childlessness[1] by Generation of Canadian Residence: Logistic Regression Models[a]

Independent Variables	First-generation Women	Second-generation Women
Age at Marriage	0.083*	0.092
	(1.896)	(0.701)
Religion	-0.148	-3.092
	(0.351)	(0.454)
Religiosity	0.302	-2.554
	(0.712)	(0.375)
Wife's Wage	0.001	0.001
	(1.239)	(0.168)
Intercept	1.374	1.657
Number of cases	103	95

[a] t-values in parentheses * $p < .05$

[1] Aggregating the three types of childlessness

However, given the extremely low levels of fertility in the province of Quebec, where a large proportion of population is Catholic, it is likely that the probability of childlessness is higher or more or less the same among Catholics and non-Catholics. Grindstaff and his colleagues (1981), however, reported that generally, those women who profess religious affiliation have the lowest levels of childlessness, but at the older ages (40 and over), the differences are not meaningful. In other words, a curvilinear relationship between age and childlessness exists with older cohorts of Catholic women showing a greater probability of childlessness. The possibility of postponement of marriage and fewer legal marital unions for reasons of maximizing upward social mobility should not be ruled out at this point. While the explanation for this hypothesis is not clear, it would seem likely that if a trend toward convergence in childlessness between Catholics and non-Catholics emerges it will become evident in the older (35 and over) women first.

Religiosity has a negative effect on all types of childlessness. The effect is significant for voluntarily and temporarily childless wives. These results are consistent with the hypothesis that a commitment to parenthood occurs when a couple is more religious and attends church services very often.

The effects of wife's wages on childlessness are positive and statistically significant; the higher the wage, the more likely she is to remain childless. These results offer strong support for the findings of other researchers (Tomes, 1985). It is premature to generalize this finding before we understand fully the role of labour force participation on (non)parenthood. However, the positive effect of wife's wage on childlessness can be explained as: there is little or no compatibility between choice of motherhood and wife's participation in the labour force.

In addition to testing all main effects, we allowed for the possibility of interactive effects of education and religious factors. This tests the possibility that the effects of religion on childlessness are different at different levels of education and religious assiduity. None of the interaction effects, however, were found to be statistically significant. Therefore the possibility that religious preference

has different effects in the presence of different levels of education and religious assiduity can be forcefully refuted.

Differential Effects of Determinants of Childlessness across Immigrant Subpopulations

We now turn to the second question. Restricting our attention to childlessness, to what extent does immigrant status influence the probability of being childless? From the bivariate analysis, we observe that the proportion of childless wives is lower among second-generation than it is among first-generation Canadians. However, this issue must be examined within the context of other factors that might be expected to influence the childlessness behaviour, in order to minimize the possibility of getting spurious generational effects.

The parameter estimates for a model that allows the effects of generation on childlessness are presented in Table 4. The noticeable difference in the estimate for the constant term suggests that the two generations differ in some important aspects such as religious characteristics within the two generations. Examining the results for the first-generation women, we observe a pattern of effects consistent with our expectations, with one important exception. The exception occured with the estimated effects of religiosity: the coefficient for the religiosity variable is small but positive for first-generation wives. Although more conclusive evidence is needed, the data presented here do confirm to our hypothesis of a low probability of childlessness among women with high levels of religious participation. Perhaps the most important conclusion is that when the other variables in the model are taken into account, first and second generations are dissimilar in their response to religious factors in childlessness. These results partly reflect the fact that highly religious second-generation wives are less likely than their first-generation counterparts to be responding to the non-traditional non-motherhood role. This finding confirms the bivariate relationships observed earlier.

Table 4 shows there are some notable differences among the groups in the effects of age at marriage and religiosity, although increased wife's wage increases the probability of childlessness

among both the generations. First, the wife's wage has greater, though statistically insignificant, effects on the probability of childlessness among first-generation women than among second-generation women. Similarly, second-generation women experience larger effects of religious factors on childlessness than first-generation. Examination of the standardized coefficients (not reported) indicates that religiosity ranks as the most important predictor in the case for first- and second-generation women. Thus, it is likely that the probability of childlessness is higher for second-generation than first-generation Canadian women at any level of religious assiduity even though increases in wife's wage increases the probability of childlessness among first-generation women rather than among second-generation women. It seems clear from these data (Table 4) that the link between socio-economic and demographic factors and childlessness depends in part upon whether childlessness is voluntary, involuntary or temporary.

Summary and Discussion

Using the Canadian Fertility Survey of currently married/common-law women in the age group 35-44, we attempted to evaluate the role of selected demographic and socio-economic factors on childlessness (voluntary, involuntary, and temporary). First, we looked at the effects of such factors on the incidence and types of childlessness. Then we determined the effect of the same factors on childlessness of two groups of women, classified by generation of Canadian residence. This allowed us to test whether generational status accounts for any observed effect.

The results can be simply summarized: there is some variation in the effects of demographic and socio-economic variables among the subpopulations. As a result, voluntarily, involuntarily, and temporarily childless wives are dissimilar in their response to socio-economic and demographic characteristics. Prior studies found that Catholics are less likely to be voluntarily childless than non-Catholics (Tomes, 1985; Poston and Kramer, 1986). This research demonstrates that Catholics tend to be more likely than non-Catholics to have no children at all. These findings help to explain why fertility rates of Catholics and non-Catholics have tended to converge in recent decades.

However, a more rigorous test of the religion-childlessness hypothesis must await further research.

First- and second-generation women appear to differ greatly in terms of determinants of childlessness. By aggregating three immigrant generations, previous models of childlessness have failed to discern that they respond differently to the factors customarily thought to influence childlessness. It is clear from these results that religious factors are more important predictors of childlessness among the second-generation wives than among the first-generation wives. In other words, differences in probability of childlessness found among immigrant generations may be due to socio-cultural or structural differences between the three groups. It is also clear that the voluntary-involuntary-temporary distinction is crucial in childlessness research.

In future research, it will be important to uncover the causes for the generation gap in childlessness. It is also crucial to find out what role this gap plays in growing or lessening aggregate fertility differentials. Since fertility rates are on the decline, it is important to assess how much variations in childlessness - whether caused by cultural preferences, immigrant position, or other structural factors - actually contribute to fertility differentials among population subgroups.

In sum, there is still much work to be done before we understand fully the importance of differential childlessness between minorities and majority natives and also between different religious groups. Yet this study makes it clear that it is misguided to focus attention on childlessness by an aggregation of different immigrant groups.

Notes:

[1] Given the relatively small sample sizes in each subpopulation, it was not possible to analyze the effect of certain important variables such as marital duration and years worked since marriage.

[2] With a dichotomous dependent variable, the constant variance assumption of the general linear model is violated and OLS estimates can be inefficient. Moreover, OLS allows predictors of probabilities outside of the range, 0-1. Although it yields unbiased parameter estimates, standard errors obtained from the OLS procedure can be biased and inconsistent (see Hanushek and Jackson, 1977; Cleary and Angel, 1984). Thus, significance tests based on the OLS estimation procedure may be substantially misleading.

[3] Because of the relatively small sample size for involuntary childlessness, analyses including husband's income were done for the remaining two types of childlessness. This variable did have a small negative effect on childlessness. The variable was excluded from the results presented here to retain comparability between the analyses.

[4] The basic patterns of significance and direction of relationships of variables were the same in both the OLS and Logistic regressions.

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